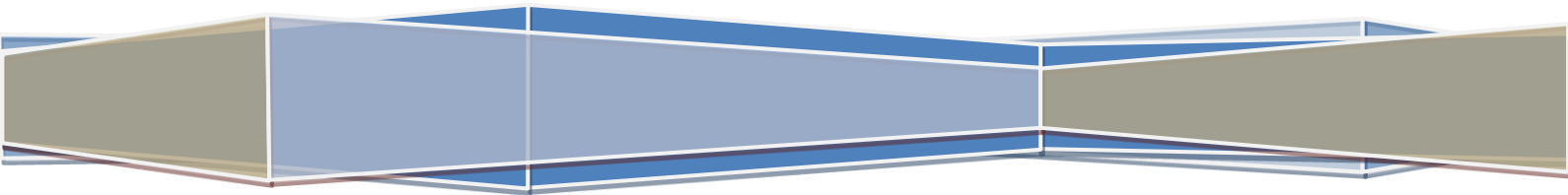


# Jones County Rural Development Site Analysis

A Study by  
Central South Dakota Enhancement District

Funded by the South Dakota Value Added Agriculture Subfund



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## Summary

### Program History

As part of the South Dakota Department of Agriculture's (SDDA) efforts to enhance economic development opportunities and better support local control of development, the County Site Analysis Program (Program) was developed in the summer of 2013. The Program assists participating counties in identifying potential rural properties with site development opportunities. The analysis and subsequent report will provide local leaders with information and research-based resources to foster well informed decisions regarding the future of their respective regions. It also helps identify and plan for potential challenges that may arise should those opportunities be pursued.

In implementing the Program, SDDA is working closely with South Dakota's Planning and Development Districts. The First District Association of Local Governments (First District) and Planning and Development District III (District III) developed a methodology for a feasibility analysis that focuses on identifying locations for rural economic development. The methodology addresses the feasibility of locations for the development of concentrated animal feeding operations, agricultural processing and storage facilities, and other agriculturally-related commercial/industrial development. The analysis takes into consideration local zoning and State permitting requirements along with the availability of infrastructure necessary to accommodate certain rural economic development projects.

The identification of each prospective site's relative advantages and constraints provides decision-makers with useful information for assessing the development potential of each site. The information contained herein has the potential to streamline the marketing process thereby reducing timelines, financial expenditures and labor costs. Local governments, landowners, economic development groups and state agencies such as the Department of Agriculture or Governor's Office of Economic Development all benefit from the rural site development analysis. These entities now have access to a marketing tool based on proactive planning efforts. In addition, the report may assist local governments in updating their comprehensive plans, zoning ordinances and permitting procedures while also increasing local awareness of potential development opportunities.

### Methodology

The analysis methodology developed for this study utilized an established set of criteria deemed critical to further development of the subject properties while specifically addressing the suitability of a site for either a concentrated animal feeding operation (CAFO) or an Agriculturally-related Industrial Development (AID). **Table 1** lists the site assessment criteria identified as being necessary in order to conduct analysis of the potential sites. Minimum thresholds for each standard were utilized to establish a hierarchy classification of "Good", "Better" and "Best" sites. Those sites designated as "Best" sites were those not limited by any of the criteria considered. Sites not meeting the minimum criteria required for the "Best" sites were subsequently identified as "Good" or "Better".

Specific information regarding the Site Assessment Criteria and methodology utilized for developing the "Good", "Better", and "Best" hierarchy may be found in **Appendix I and II**, respectively.

**Table 1: Site Assessment Criteria**

<b>CAFO/AID Criteria</b>
Access to County and State Road Network
Proximity to Three-phase Electricity Supply
Proximity to Rural Water System
Capacity of Rural Water System
Location of Shallow Aquifer
Existing Zoning Districts/Land Use Plans
Buildable Parcel
County CAFO Zoning Setback Requirements (If applicable)*
Proximity to Rural Residences* & Communities
Proximity to Rail**

\*CAFO Assessment Criteria Only

\*\* AID Assessment Criteria Only

### **Limiting Factors**

While this report focuses on the specific sites matching the site assessment criteria standards, it became apparent that each site also possesses its own unique set of site characteristics which present both advantages and constraints.

The analysis found that the primary limiting factor(s) in reviewing the development potential of properties within Jones County for a “Better” or “Best” CAFO site development is the availability of quality and quantity potable water. The same is true with AID developments which also require a reliable source of not only high quality but also large quantities. Access to a centralized water source such as a rural water system was a piece of key criteria in the site analysis process. While access to rural water quality water was identified as an impediment, the rural water system noted that if a significant water user would locate in the county; they would explore ways to provide water to the proposed development. In addition, high water use areas cannot currently take water from the Mni Wiconi Corelines. This is only temporary due to improvements they are making and need to ensure that they will have enough water for themselves before giving it to West River Lyman Jones (WRLJ). Therefore, the analysis does not make the claim that the only sites for CAFO/AID development in Jones County be relegated to the specific sites identified herein.

In addition to the availability of quality potable water, additional limiting factors such as access to County and State road networks, 3-Phase power lines, rail, and the county’s existing zoning ordinances/setback requirements limited the number of potential AID and CAFO sites.

The site assessment process was limited in scope to include undeveloped parcels and did not consider expansion of existing CAFOs or commercial/industrial uses. In addition to this limited scope, minimum values were utilized in ranking each site with regards to zoning requirements and infrastructure demands. No attempt was made to rank each site within the three identified classifications. The uniqueness of each criterion identified in Table 1 warrants a comprehensive review of the potential impact each may have upon a subject property. This study is intended as the first step of a multi-faceted development process potentially leading to more specific site evaluations such as Phase 1 Environmental Site Assessments, engineering plans, development cost analysis, etc.

## Results

Identifying and evaluating potential sites for development is the first step in planning for economic development in rural Jones County. The findings of this report will assist in determining the potential role each site may play in supporting economic development and should be considered when planning for future projects within Jones County.

Utilizing Geographic Information System (GIS) technology, the Central South Dakota Enhancement District identified **7** sites within Jones County that met the minimum site assessment standards of the CAFO analysis, shown in **Table 2**. There were **58** sites identified that met the minimum standards of the AID analysis, as shown in **Table 3**. These sites complied with local zoning ordinances and were in close proximity to infrastructure necessary to support the previously identified economic development activities.

The CAFO and AID Analysis Maps further detail High Water Use (HWU) and Low Water Use (LWU) for these development sites. HWU CAFO sites are those locations which require 150,000 gallons of water per day. This amount of water is necessary to support, for example, a 3,000-head dairy operation. For clarification, other livestock operations such as beef that are relative to Jones County will be classified with dairy. LWU CAFO sites are those locations which require 30,000 gallons of water per day, a volume necessary to support either a 600-head dairy or 5,000 head sow operation. HWU AID sites are locations which require water at levels necessary to support high water uses such as food processing or ethanol production. The water requirement for a HWU AID site is 410,000 gallons of water per day, which is supported on a limited basis by the rural water system. LWU AID sites are those locations which require water at levels necessary to support most agriculturally-related commercial/industrial development, 30,000 gallons per day. The analysis identified **3** High Water Use and **7** Low Water Use CAFO sites. Further, there were **47** High Water Use and **58** Low Water Use AID sites identified. The following maps provide information at a township level regarding the number of “Good”, “Better” and “Best” CAFO and AID sites.

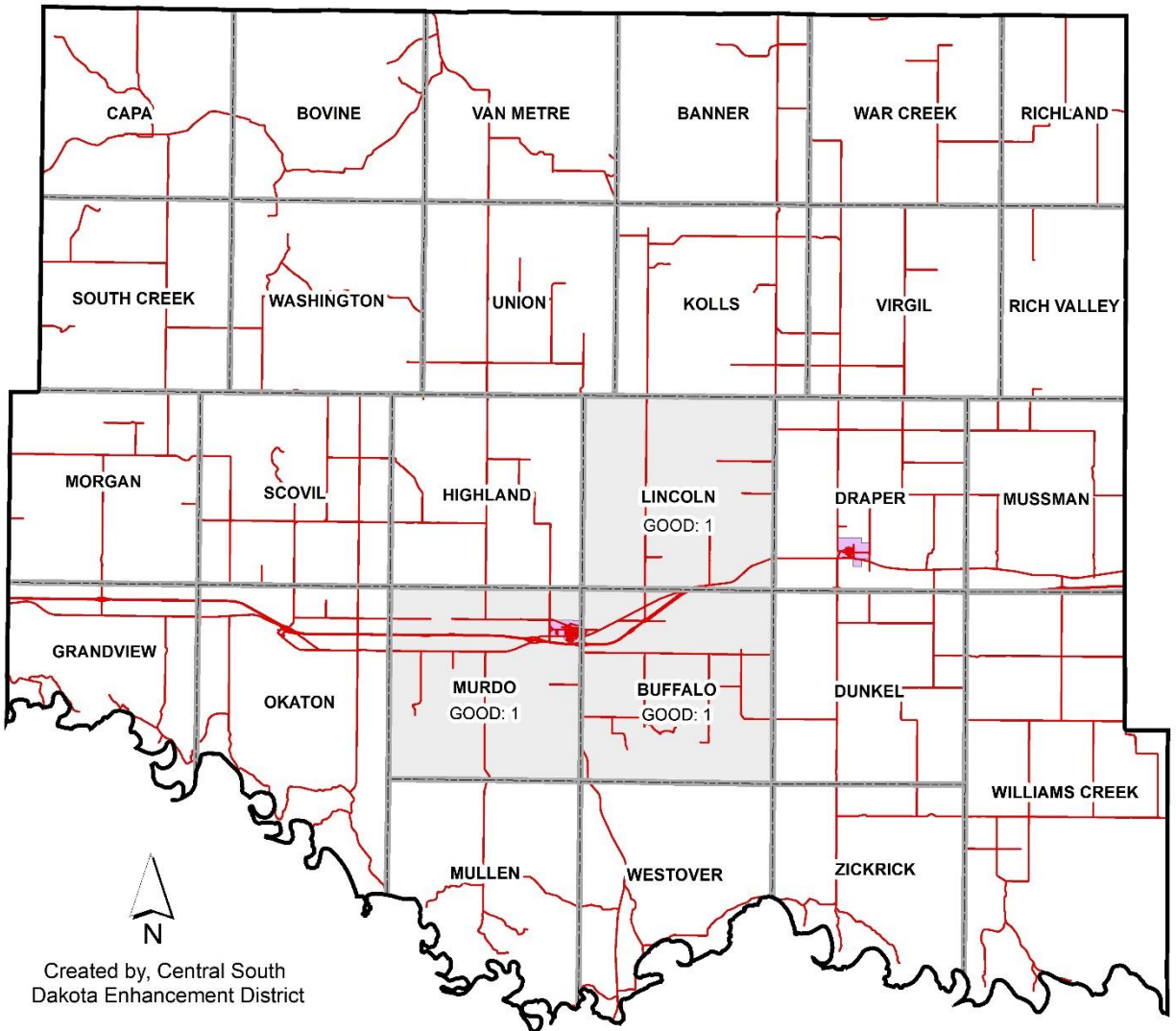
**Table 2:**  
**Jones County CAFO Sites by Hierarchy Classification**

CAFO Site Classification	Good Sites	Better Sites	Best Sites
Low Water CAFO	7	0	0
High Water CAFO	3	0	0

**Table 3:**  
**Jones County AID Sites by Hierarchy Classification**

AID Site Classification	Good Sites	Better Sites	Best Sites
Low Water AID	58	0	0
High Water AID	47	0	0

# Jones County High Water Use CAFO Development Sites 2017



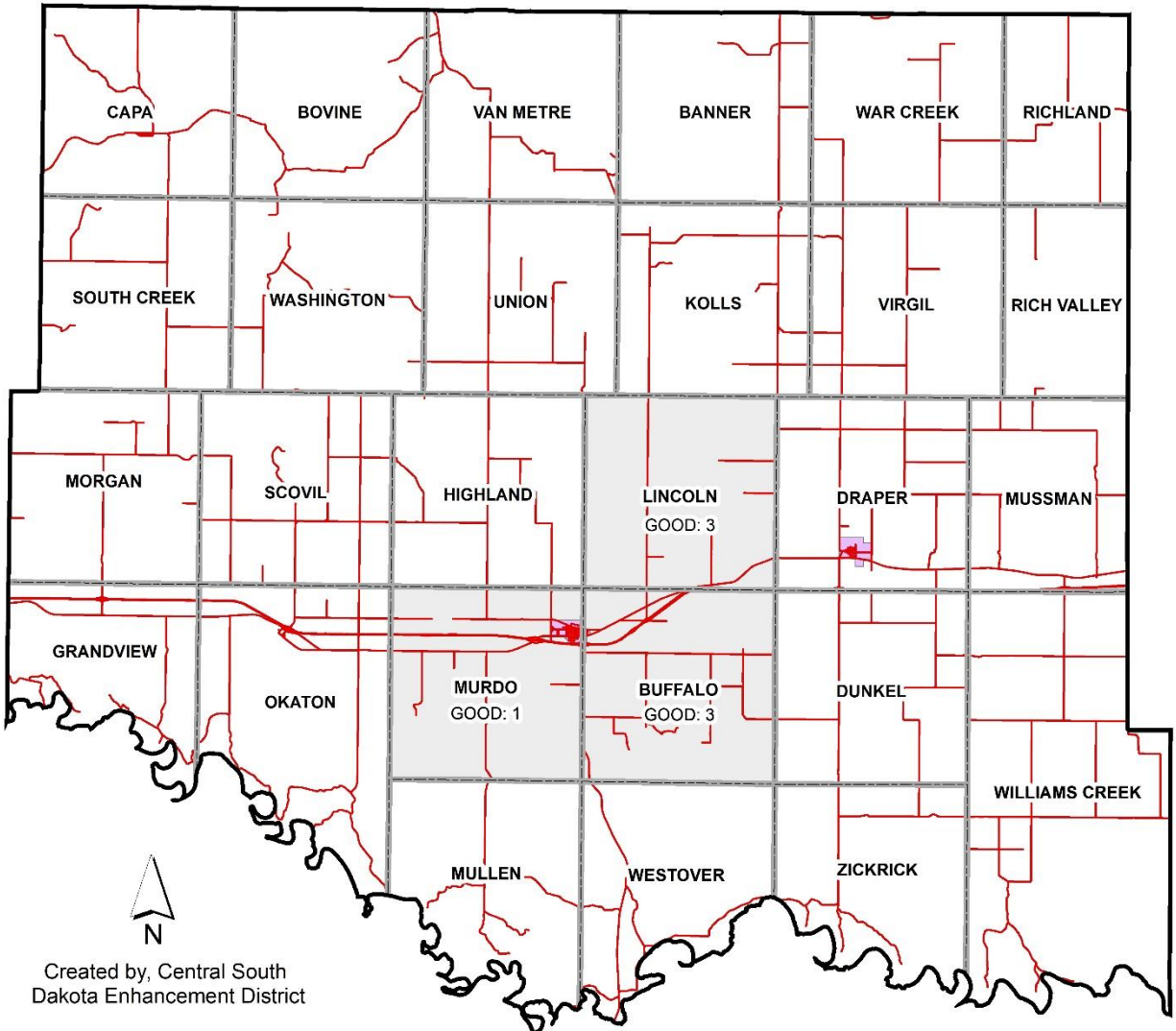
## Legend

- Townships
- Roads
- City Limits

0 2.5 5 10 15 Miles

Township	Best	Better	Good	Township	Best	Better	Good	Township	Best	Better	Good
Banner				Lincoln			1	South Creek			
Bovine				Morgan				Union			
Buffalo			1	Mullen				Van Metre			
Capa				Murdo			1	Virgil			
Draper				Mussman				War Creek			
Dunkel				Okaton				Washington			
Grandview				Rich Valley				Westover			
Highland				Richland				Williams Creek			
Kolls				Scovil				Zickrick			

# Jones County Low Water Use CAFO Development Sites 2017



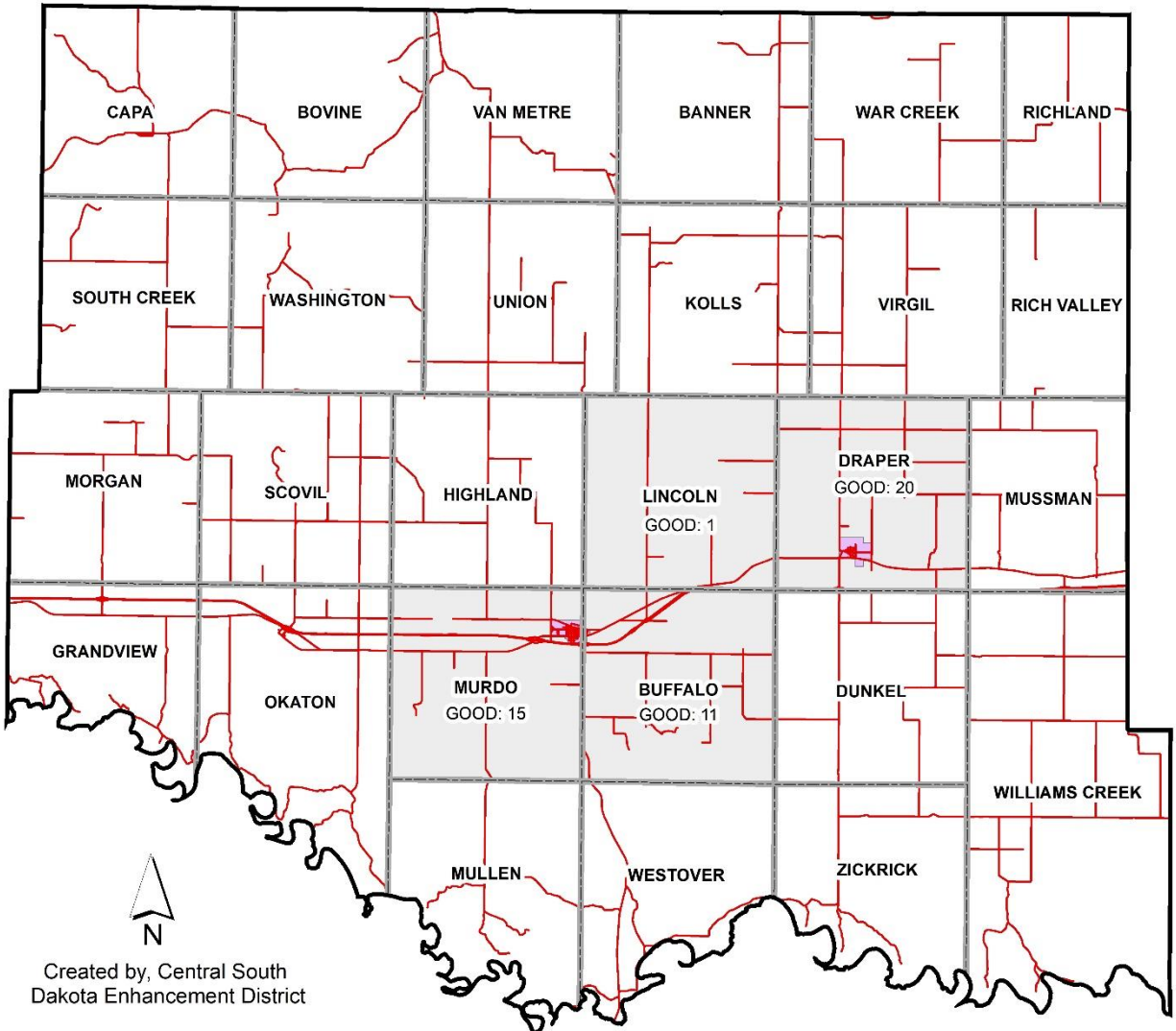
## Legend

- Townships
- Roads
- City Limits

0 2.5 5 10 15 Miles

Township	Best	Better	Good	Township	Best	Better	Good	Township	Best	Better	Good
Banner				Lincoln			3	South Creek			
Bovine				Morgan				Union			
Buffalo			3	Mullen				Van Metre			
Capa				Murdo			1	Virgil			
Draper				Mussman				War Creek			
Dunkel				Okaton				Washington			
Grandview				Rich Valley				Westover			
Highland				Richland				Williams Creek			
Kolls				Scovil				Zickrick			

# Jones County High Water Use AID Development Sites 2017



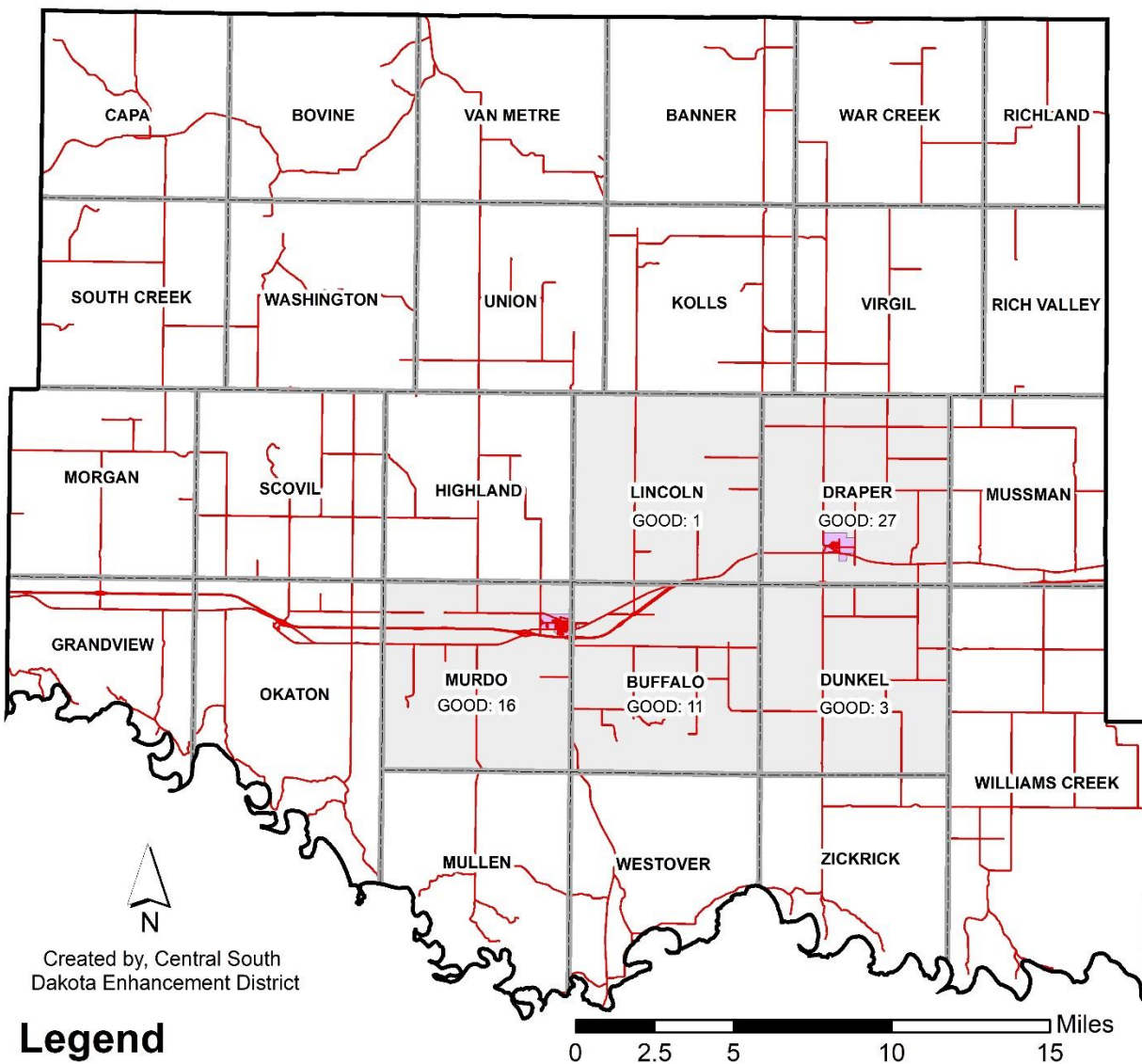
## Legend

- Townships
- Roads
- City Limits

0 2.5 5 10 15 Miles

Township	Best	Better	Good	Township	Best	Better	Good	Township	Best	Better	Good
Banner				Lincoln			1	South Creek			
Bovine				Morgan				Union			
Buffalo			11	Mullen				Van Metre			
Capa				Murdo			15	Virgil			
Draper			20	Mussman				War Creek			
Dunkel				Okaton				Washington			
Grandview				Rich Valley				Westover			
Highland				Richland				Williams Creek			
Kolls				Scovil				Zickrick			

# Jones County Low Water Use AID Development Sites 2017



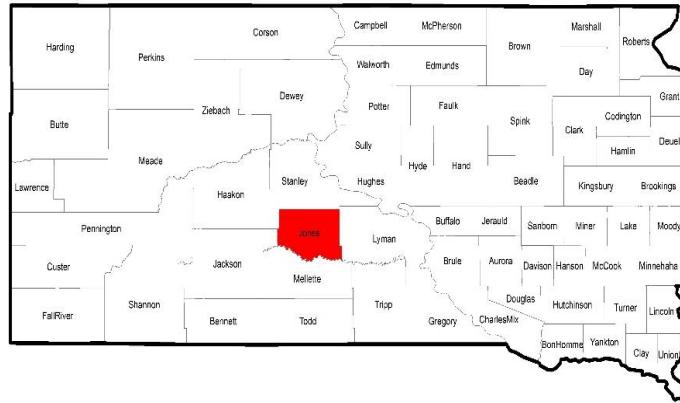
## Legend

- Townships
- Roads
- City Limits

Township	Best	Better	Good	Township	Best	Better	Good	Township	Best	Better	Good
Banner				Lincoln			1	South Creek			
Bovine				Morgan				Union			
Buffalo			11	Mullen				Van Metre			
Capa				Murdo			16	Virgil			
Draper			27	Mussman				War Creek			
Dunkel			3	Okaton				Washington			
Grandview				Rich Valley				Westover			
Highland				Richland				Williams Creek			
Kolls				Scoville				Zickrick			

## APPENDIX I: SITE ASSESSMENT CRITERIA

Jones County Location Map



The developed methodology for this site analysis was carefully assembled using an established set of criteria regarded as crucial to further the development of subsequent properties, while specifically addressing the suitability of either a CAFO or an AID site.

Sites possessing all of the criteria identified as critical within the analysis will be those most sought by potential developers. The occurrence of these sites may be somewhat rare. Therefore, sites under consideration for either a CAFO or AID may meet the majority of criteria, but may also be lacking in a crucial specific area. Any sites not meeting all the criteria may be burdened with a limitation, thus, requiring more specific analysis. In these cases, the feasibility of developing the site is highly dependent upon the identified limitation(s).

A limiting condition could be the availability of water volume at an identified potential CAFO site. For example, the water condition for a 3,000-head dairy, versus the needs of a 5,000-head sow operation is approximately five times greater, but both could be subject to similar zoning regulations. In this situation, the lack of water at a volume necessary for a potential dairy site are more likely identified as a location for a swine facility.

It should be noted that neither this example nor the analysis explores potential alternatives to the absence of adequate rural water volume such as upsizing water distribution infrastructure or securing an alternative water source. These issues hold the potential to mitigate this constraint, thereby, facilitating the proposed development. Rather, the analysis recognizes upgrading infrastructure identified as necessary to support rural economic development projects may increase the number of developable sites within Jones County. In other cases, failure to meet certain criteria, such as access to a quality road network, may result in a situation where development of the site becomes economically unfeasible. Another limiting factor could be uneven terrain/topography for AID sites located throughout the county. The site assessment criteria, depending upon whether or not the site is for a CAFO or AID project, have been divided into the four major categories of **Land Use Regulations, Zoning, Environmental Constraints** and **Infrastructure**.

## **LAND USE REGULATIONS**

Economic development planning in Jones County must be conducted in concert with Jones County's overall economic development goals. All development activities, including those specifically related to agriculture need to be accomplished within the parameters set forth in local and regional planning documents. Land use or development guidance is traditionally provided via local documents such as **comprehensive plans, zoning ordinances, policies, mission statements**, and other local economic development plans and initiatives. The analysis reviewed said documents to determine compliance with potential CAFO and AID development. The following is a synopsis of Jones County's policies regarding CAFO and AID development.

### **Comprehensive Land Use Plan**

Jones County's Comprehensive Plan serves as a tool for future development. Chapter VIII of the Jones County's Comprehensive Plan outlines the county's current and future land use. The only concentrated land use in Jones County is located in the three communities of Murdo, Draper, and Okaton. The majority of land use in the county consists of farmsteads widely spaced. Over 90 percent of the county's land is used for agricultural purposes. Although farms are expected to be fewer in number in the future, they are also expected to be larger in size, and this agricultural orientation is not expected to change.

### **Zoning**

Ideally, economic developers seek sites that are zoned and eligible for specific uses. The need to pursue a zoning change or conditional use permit introduces an additional step in the development process; thus, increasing development timeframes and costs. These steps or requirements also increase the uncertainty of approval given zoning changes are referable. Another contention is the super majority voting requirement necessary for a County's Board of Adjustment to approve a conditional use permit.

While the rural areas of Jones County are reserved for agricultural uses, certain agricultural uses may require a case by case review. Generally speaking, CAFOs are one of the aforementioned uses. It is important to emphasize that agricultural producers must maintain flexibility in their operations. Jones County's leadership recognizes a diverse agricultural industry, relying on cash crops and animal agriculture, and promotes a sustainable, balanced agricultural economy. CAFO sites further these goals as they create a demand for crops grown in the area, provide fertilizer for surrounding land, and yield a raw product which is, in some cases, directly sold to local residents. Zoning regulations pertaining to concentrated animal feeding operations can be referenced to in Jones County's Zoning Ordinances.

### **General CAFO Policies in the Jones County Zoning Ordinance:**

1. Confinement or commercial feeding operations with more than 400 animal units.
  - a. Application for a conditional use permit for a confinement feeding operation shall include the following requirements.
    1. Notification of adjacent property owners by certified mail living within one mile of the confinement site in an established dwelling.

2. The general permit from the South Dakota Department of Environment & Natural Resources (SD DENR) is required for all livestock confinement facilities or commercial feedlot operations of 400 animal units or more shall comply with all requirements of the South Dakota Department of Environment and Natural Resources.
3. Annual statement of compliance to conditions of the conditional use permits and the general permit issued by the Department of Natural Resources to the Jones County Commission.
4. The minimum separation shall be used in siting a concentrated animal feeding operation. The minimum separation criteria may be increased based on site specific conditions. When a proposed operation does not meet the minimum separation, the application shall be accompanied by one of the following or a combination thereof:
  - a) A signed waiver from each landowner located closer than the minimum separation criteria. No Building permits shall be issued until the waivers are filed with the County Register of Deeds.
  - b) In the absence of a waiver, documentation shall be presented on new technology, management practices, topographic features, soil conditions, or other factor which substantiate a reduction in the minimum separation criteria.
5. Minimum separation requirement for animal waste application sites:
  - a) Residence (other than operator) surface applied 300 feet, injected 50 feet.
  - b) Municipalities surface applied 1,000 feet, injected 300 feet.

#### Concentrated Animal Feeding Operation Setbacks:

Jones County utilizes standard setback requirements based upon the following classes based on Animal Units (AU):

- Class A – 2,000 or more
- Class B – 1,000 to 1,999
- Class C – Up to 999

For the purpose of the analysis a 3,000-head dairy and a 5,000-head sow farrowing operation was used for identifying CAFO sites. The setback requirements for the 5,000-head sow farrowing operation are **identical** to the 3,000-head dairy operation. In Jones County, a CAFO is required to observe a minimum setback of **one mile** when Class A (2,000 or more AU), **half-mile** when Class B (1,000 to 1,999 AU), and **quarter-mile** when Class C (up to 999 AU) from established dwellings, churches, schools, and businesses. Confinement operations must remain a minimum of **50 feet** from adjoining property lines, US Highway 83, Interstate 90, and all improved county and township road right of ways. All 7 CAFO sites in the analysis are currently zoned agricultural and each of the individual identified parcels, or at least a portion thereof, meet setback and lot area requirements.

#### Commercial/Industrial Development

There is very little concentrated or clustered commercial/industrial activity at the county level. Jones County's commercial and industrial properties are generally singular and adjacent to county and state hard surface roads. Commercial and industrial activities located in rural areas are generally not conducive to municipal or populated locales.

### Buildable Parcel

One criterion deemed necessary to facilitate development of either a CAFO or an AID was land area. A parcel of 40 buildable acres was set as the minimum for consideration within the analysis. In order to be considered, the property must have consisted of 40 contiguous acres and be able to support development upon all 40 acres. Parcels without 40 buildable acres were not considered in the final analysis.

### Proximity to Communities

The AID analysis also considered sites within one mile of a community or at specific locations identified by Jones County. This was done because many communities and counties have established growth plans for economic development within certain proximities of communities or at locations with existing infrastructure such as paved roads. Also since the parameters of the original AID analysis excluded all AID sites within counties without access to rail, the criterion of “proximity to a community” was determined to be an adequate alternative for counties without rail facilities to identify potential AID sites.

## **ENVIRONMENTAL**

If available, the location of shallow aquifers in relation to potential development sites was included in the analysis. In reviewing shallow aquifers, it is critical to note that they are included in the analysis for two distinct and very different reasons. Shallow aquifers may be utilized as a potential water source to support development. These same aquifers are also vulnerable to pollution due to their proximity to the surface and may be required to be protected via setbacks and development limitations.

At present, there is limited information regarding the occurrence and/or location of shallow aquifers in Jones County. Further, Jones County has not enacted or currently enforce aquifer protection or surface water regulations more restrictive than the State of South Dakota. Therefore, all sites within Jones County were considered eligible for development.

Prior to or contingent upon acquiring a parcel for development it is assumed other environmental factors potentially affecting the property would be addressed via a Phase I Environmental Site Assessment or similar process. It is recommended that developers consider undertaking such an inquiry prior to executing a major commitment to a particular location.

## **INFRASTRUCTURE**

The term infrastructure is broad in the context of property development which includes essential services such as water, sewer, electrical, telecommunications, and roads. With regards to the rural site analysis process; access to quality roads, electrical capacity and water supply were deemed essential and identified as site selection criteria.

## Transportation

Access to quality roads was identified as critical to determining the development potential of a parcel. The proximity of a potential development site to either a state or county road was established as one of the parameters in conducting the rural site analysis. In addition to utilizing the South Dakota Department of Transportation's road layer to identify roads and surface types, local experts were consulted to assist in identifying the road network. CSDED requested the Jones County Highway Superintendent to identify segments of the county road system inadequate to support a CAFO or AID. Sites accessed only by township roads that were located further than one mile from the intersection of a County or State hard surface road network were eliminated from the analysis.

A potential development site's proximity to certain road types impacted its designation. Those parcels abutting hard surface roads were consistently ranked higher than those served by gravel roads. In reviewing CAFO and AID sites, parcels adjacent to a county or state hard surface road were designated "Better" or "Best" for transportation resources. Parcels adjacent to county gravel roads or within one mile of an intersection with a county/state road network were designated "Good" for CAFO sites. Parcels within one mile of an intersection with a county/state hard surface road network were designated "Good" for AID sites.

Access to rail was also considered to be an important factor in locating an AID site. Parcels adjacent to rail facilities were designated "Best". Parcels within one-half mile of rail were designated "Better" and those parcels within one mile of rail were designated "Good". In addition, the analysis also considered sites within one mile of a community or at locations identified by the County, with or without rail. Those parcels within one mile of a municipality or at locations identified by the County that met necessary requirements, except access to rail, were designated as "Good" and "Better".

## Electric Supply

Access to 3-phase power was designated as a site characteristics criterion for both CAFO and AID development. The Central South Dakota Enhancement District contacted West Central Electric Cooperative to obtain the location and capacity of the 3-Phase infrastructure within Jones County as the provider of electricity in Jones County. All parcels whether for CAFO or AID development adjacent to a 3-phase power line were designated "Best" for electricity resources. Whereas, parcels within one mile of a three-phase power line were designated "Better" and those within two miles of a three-phase power line were designated "Good".

## Water Supply

The ability to secure specific information regarding a rural water system's operations to include storage, distribution, and capacities proved to be the most complex and difficult component of the infrastructure analysis. Due to this, water resources were evaluated differently than transportation and electric infrastructure. While transportation and electric infrastructure were classified based primarily upon location and availability of three-phase power, the analysis of rural water systems first required the evaluation of the water system, specifically, each system's supply and distribution capacities.

Development sites were then selected upon the proximity to water service. The classifications with regards to water supply and their respective criteria are as follows:

## 1. “Best” Classification

### a. CAFO

- i. High Water Use CAFO Site - If the site was adjacent to or within an area where a rural water system had sufficient supply and distribution capacity to provide 150,000 gallons per day, the site area was designated as “Best” for water resources.
- ii. Low Water Use CAFO Site - If the site was adjacent to or within an area where a rural water system had sufficient supply and distribution capacity to provide 30,000 gallons per day, the site area was designated as “Best” for water resources.

### b. AID

- i. High Water Use AID Site - If the site was adjacent to or within an area where a rural water system had sufficient supply and distribution capacity to provide 410,000 gallons per day, the site area was designated as “Best” for water resources.
- ii. Low Water Use AID Site - If the site was adjacent to or within an area where a rural water system had sufficient supply and distribution capacity to capacity to provide 30,000 gallons per day, the site area was designated as “Best” for water resources.

## 2. “Better” Classification

### a. CAFO

- i. High Water Use CAFO Site - If the site was within an area where a rural water system had either a sufficient supply or distribution capacity to provide 150,000 gallons per day, the site area was designated as “Better” for water resources.
- ii. Low Water Use CAFO Site - If the site was within an area where a rural water system had either a sufficient supply or distribution capacity to provide thirty thousand 30,000 gallons per day, the site area was designated as “Better” for water resources.

### b. AID

- i. High Water Use AID Site - If the site was within an area where a rural water system had sufficient supply or distribution capacity to provide 410,000 gallons per day, the site area was designated as “Better” for water resources.
- ii. Low Water Use AID Site - If the site was within an area where a rural water system had sufficient supply or distribution capacity to provide 30,000 gallons per day, the site area was designated as “Better” for water resources.

### 3. “Good” Classification

- a. In the event the Rural Water System has neither supply nor distribution capacity to serve either a Low or High Water Use CAFO or Low Water Use AID as defined above, the site area was designated as “Good” for water resources if it was located within **two miles** of a river, stream or lake designated by SD DENR Administrative Rule 74:51:02 and 74:51:03 which assigns the following uses to rivers streams and lakes – domestic water supply, stock watering waters, irrigation waters, commerce and industry waters, cold water and warm water permanent fish life propagation waters. The analysis does not make any conclusions regarding the quantity or quality of the water source identified in SDDENR Administrative Rule 74:51:02 and 74:51:03. Only that the potential for a water source may exist. The designation as “Good” for water resources was not applied to High Water Use AID sites due to the water volume requirements of High Water Use AID sites and the lack of available data regarding the capacity of shallow aquifers. Therefore, High Water Use AID sites without a water resource designation of “Better” or “Best” were deemed unusable for the purpose of the analysis.

The site analysis sought to address whether or not the Rural Water System serving the region had excess water treatment capacity (supply) and their ability to serve potential properties (distribution). In order to address the issue of supply, the Central South Dakota Enhancement District contacted and requested location and capacity information from the rural water provider within Jones County. The primary rural water system for Jones County is West River Lyman Jones Rural Water System (WRLJ). WRLJ was requested to provide information regarding their available treated water capacity. The system was asked to notate on maps those geographic areas where distribution capacity existed which could provide water volumes at 30,000, 150,000, and 410,000 gallons per day, respectively.

WRLJ sent detailed maps illustrating approximate locations of water delivery capacity without conducting a hydraulic analysis on land areas. However, WRLJ expressed that high water use areas cannot currently take water from the Mni Wiconi Corelines. This is only temporary due to improvements they are making and need to ensure that they will have enough water for themselves before giving it to WRLJ.

WRLJ identified 58 miles of water lines that could service land areas potentially meeting the minimum High Water Use CAFO “Best” requirement of 150,000 gallons per day. Also, the rural water system identified 500 miles of water lines that could service land areas potentially meeting the minimum Low Water Use CAFO “Best” requirement of 30,000 gallons per day.

WRLJ stated that corelines have the delivery capacity to accommodate the High Water Use AID site “Best” requirement of 410,000 gallons per day.

## APPENDIX 2: RESEARCH AND METHODOLOGY

This section describes the methodology utilized to evaluate the suitability of potential CAFO or AID development sites.

### Step 1: Identification of Site Assessment Criteria

**Table A1** lists the site assessment criteria identified as being necessary to conduct an analysis of potential sites. Utilizing these criteria as a guide, a variety of research methods were employed to compile the GIS data sets utilized within the analysis. Research efforts included the examination of local, regional, and state planning documents along with existing GIS data layers.

**Table A1: Site Assessment Criteria**

CAFO Criteria	AID Criteria
Access to County and State Road Network	Access to County and State Road Network
Proximity to Three-Phase Electricity Supply	Proximity to Three-Phase Electricity Supply
Proximity to Rural Water System	Proximity to Rural Water System
Capacity of Rural Water System	Capacity of Rural Water System
Location of Shallow Aquifer	Location of Shallow Aquifer
Buildable Parcel	Buildable Parcel
Existing Zoning Districts/Land Use Plans	Existing Zoning Districts/Land Use Plans
Proximity to Rural Residences & Communities	Proximity to Communities
County CAFO Zoning Setback Requirements	Proximity to Rail

### Step 2: Evaluation of Site Assessment Criteria

After developing the data sets in **Table A1**, the analysis identified those site locations that:

1. Complied with zoning guidelines; and
2. Were in close proximity to infrastructure necessary to support either CAFO or AID development.

### Concentrated Animal Feeding Operation (CAFO) Analysis

The GIS analysis removed all parcels within the County from consideration that:

1. Were not within one mile of a County or State road;
2. Were not within two miles of three-phase electric power;
3. Did not meet the setbacks from (county specific uses i.e. - existing residences, churches, businesses and commercially zoned areas);
4. Did not meet the setbacks from municipalities;
5. Did not meet the minimum standards for available water;
6. Did not contain a buildable footprint of at least 40 acres.

After applying the buildable footprint requirement to each site, the availability of necessary infrastructure was incorporated into the analysis. The general location of available water, electric and road infrastructure was applied to the remaining sites to establish “Good”, “Better” and “Best” hierarchy of potential development sites. **Table A2** exhibits the minimum requirements necessary for a site to be classified as “Good”, “Better” or “Best” for **CAFO development**.

**Table A2: CAFO Hierarchy Classification Requirements**

Location Criteria	Description	Good	Better	Best
Roads	Site is <u>adjacent</u> to County/State hard surface road		X	X
	Site is within <u>one (1) mile</u> of a County/State road	X		
Water	Site is <u>adjacent</u> to rural water system area that has both supply <u>and</u> distribution capacity to provide 150,000 gallons per day or 30,000 gallons per day			X
	Site is <u>adjacent</u> to or within rural water system area that has either supply <u>or</u> distribution capacity to serve either 150,000 gallons per day or 30,000 gallons per day		X	
	Site is within <u>two (2) miles</u> of a river, stream or lake designated by SD DENR Administrative Rule 74:51:02 and 74:51:03 which assigns the following uses to rivers streams and lakes – domestic water supply, stock watering waters, irrigation waters, commerce and industry waters, cold water and warm water permanent fish life propagation waters	X		
Electricity	Site is <u>adjacent</u> to three-phase power			X
	Site is within <u>one (1) mile</u> of three-phase power		X	
	Site is within <u>two (2) miles</u> of three-phase power	X		
Zoning	Site meets county zoning setback requirements	X	X	X
Buildable Parcel	Site contains buildable area of at least forty <u>(40) acres</u>	X	X	X

### **Agriculturally-related Industrial Development (AID)**

The GIS analysis removed all parcels within the County from consideration that:

1. Were not within one mile of a County or State hard surface road;
2. Were not within two miles of three-phase electric power;
3. Were not within one mile of rail, if applicable;
4. Were not within one mile of a community or at locations identified by the county
5. Did not meet the minimum standards for available water;
6. Did not contain a buildable footprint of at least 40 acres.

After applying the required location based site assessment criteria to each site, the availability of necessary infrastructure was incorporated into the analysis. The general location of available water, electric, rail and road infrastructure was applied to the remaining sites to establish “Good”, “Better” and “Best” hierarchy of potential development sites. **Table A3** exhibits the minimum requirements necessary for a site to be classified as “Good”, “Better” or “Best” **for AID development**.

**Table A3: AID Hierarchy Classification Requirements**

Location Criteria	Description	Good	Better	Best
Roads	Site is <u>adjacent</u> to County/State hard surface road		X	X
	Site is within <u>one (1) mile</u> of a County/State hard surface road	X		
Rail	Site is <u>adjacent</u> to rail facility			X
	Site is within one half $\frac{1}{2}$ mile of rail facility		X	
	Site is within <u>one (1) mile</u> of rail facility	X		
Water	Site is <u>adjacent</u> to rural water system area that has both supply and distribution capacity to provide 410,000 gallons per day or 30,000 gallons per day			X
	Site is <u>adjacent</u> to or within rural water system area that has either supply or distribution capacity to serve either 410,000 gallons per day or 30,000 gallons per day		X	
	Site is within <u>two (2) miles</u> of a river, stream or lake designated by SD DENR Administrative Rule 74:51:02 and 74:51:03 which assigns the following uses to rivers streams and lakes – domestic water supply, stock watering waters, irrigation waters, commerce and industry waters, cold water and warm water permanent fish life propagation waters *	X		
Electricity	Site is <u>adjacent</u> to three-phase power			X
	Site is within <u>one (1) mile</u> of three-phase power		X	
	Site is within <u>two (2) miles</u> of three-phase power	X		
Zoning	Site is zoned for commercial/industrial development			X
	Site is identified in land use plan for commercial/industrial development		X	
	Site is neither identified or zoned for commercial/industrial development	X		
Proximity to Community	Site is within <u>one (1) mile</u> of community	X	X	
Buildable Parcel	Site contains buildable area of at least forty <u>(40) acres</u>	X	X	X

\* Rivers, streams, and lakes designated by SD DENR Administrative Rule 74:51:02 and 74:51:03 are not used for High Water Use AID site analysis as they require specific Rural Water System Supply and Distribution Capacities

### Step 3: Site Development Recommendations

Based on the analysis, **7** sites were classified as Good, Better, or Best for CAFO development (**Table A4**) and **58** sites were classified as Good, Better, or Best for AID development (**Table A5**).

While this study only identifies those sites that met the required criteria for the analysis, it should be noted that other sites within Jones County may be satisfactory for CAFO and AID development. Sites not within the specified distance of a hard-surfaced County or State road or that do not have desired infrastructure (rail, water, power) within close proximity do not necessarily negate their development potential.

**Table A4:**  
**Jones County CAFO Sites by Hierarchy Classification**

CAFO Site Classification	Good Sites	Better Sites	Best Sites
Low Water CAFO	7	0	0
High Water CAFO	3	0	0

**Table A5:**  
**Jones County AID Sites by Hierarchy Classification**

AID Site Classification	Good Sites	Better Sites	Best Sites
Low Water AID	58	0	0
High Water AID	47	0	0

## **APPENDIX 3: CONTACT INFORMATION**

### **Central South Dakota Enhancement District**

Executive Director: Marlene Knutson  
Planner: Emeline Hoblick  
Planner: John Coppock  
Phone: (605) 773-2780

### **First District Association of Local Governments**

Executive Director: Todd Kays  
GIS Coordinator: Ryan Hartley  
Phone: (605) 882-5115

### **Jones County**

Jones County Auditor: John Brunskill  
Phone: (605) 669-7100

Director of Equalization: Terri Volmer  
Phone: (605) 669-7103

Highway Superintendent: Dallas Young  
Phone: (605) 669-7102

### **Rural Water System**

West River/Lyman-Jones Rural Water System  
Manager: Jake Fitzgerald  
Phone: (605) 669-2931

### **Electric Provider**

West Central Electric Cooperative  
CEO: Steven Reed  
Phone: (605) 669-8100